



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0982; Project Identifier MCAI-2020-01037-T; Amendment 39-21478; AD 2021-07-01]

RIN 2120-AA64

Airworthiness Directives; Airbus SAS Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Airbus SAS Model A318, A319, A320, and A321 series airplanes. This AD was prompted by a report that the oil used to protect the nose landing gear (NLG) main fittings for transportation and storage was not removed before final heat treatment of the affected parts, possibly generating sub-surface cavities during heat treatment of the affected parts. This AD requires replacing each affected NLG main fitting with a serviceable part, as specified in a European Union Aviation Safety Agency (EASA), which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For material incorporated by reference (IBR) in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this IBR material on the EASA website at <https://ad.easa.europa.eu>. You may view this IBR material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0982.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0982; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Sanjay Ralhan, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3223; email Sanjay.Ralhan@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

The EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2020-0165, dated July 23, 2020 (EASA AD 2020-0165)

(also referred to as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for all Airbus SAS Model A318, A319, and A321 series airplanes and Model A320-211, -212, -214, -215, -216, -231, -232, -233, -251N, -252N, -253N, -271N, -272N, and -273N airplanes. Model A320-215 airplanes are not certificated by the FAA and are not included on the U.S. type certificate data sheet; this AD therefore does not include those airplanes in the applicability.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Airbus SAS Model A318, A319, A320, and A321 series airplanes. The NPRM published in the *Federal Register* on November 5, 2020 (85 FR 70523). The NPRM was prompted by a report that the oil used to protect the NLG main fittings for transportation and storage was not removed before final heat treatment of the affected parts, possibly generating sub-surface cavities during heat treatment of the affected parts. The NPRM proposed to require replacing each affected NLG main fitting with a serviceable part, as specified in EASA AD 2020-0165.

The FAA is issuing this AD to address possible sub-surface cavities in the NLG main fittings, which could cause detrimental impact on fatigue performance and affect the structural integrity of the NLG. See the MCAI for additional background information.

Comments

The FAA gave the public the opportunity to participate in developing this final rule. The following presents the comments received on the NPRM and the FAA's response to each comment.

Support for the NPRM

The Air Line Pilots Association, International (ALPA) indicated its support for the NPRM.

Explanation of Typographical Error

A typographical error in paragraph (c)(3) of the proposed AD was introduced during the publication process. This AD corrects that typographical error. Paragraph (c)(3) of the proposed AD specified Model A320-251 airplanes, however the correct Model designation is Model A320-251N airplanes. The Summary and Discussion sections of the proposed AD, along with the incorporated by reference document, correctly identified the affected airplanes. The FAA has revised paragraph (c)(3) of this AD accordingly.

Request to Revise the Costs of Compliance Section

An individual commenter recommended that the FAA expand on the estimated cost analysis by providing more support for labor costs and quantifying the parts cost. The commenter stated that the overall cost estimate seemed low, and noted that no parts cost estimate was included in the NPRM. The commenter suggested that the FAA could provide a breakdown of how the labor hours were calculated, as well as a parts cost estimate. The commenter noted that landing gears on Airbus airplanes are expensive, and provided a link to a document with information on the cost of main landing gears on Airbus products. The individual commenter also recommended that the FAA provide a brief quantitative benefit analysis. The commenter stated that a benefit analysis would bolster the proposition that the FAA is following statutory text, but acknowledged that consideration of the benefits might not be required since the proposed AD corrects an unsafe condition. The commenter stated that these recommendations will help prevent this rulemaking from being considered arbitrary.

The FAA agrees to clarify the labor and parts cost estimate. The manufacturer determines labor cost estimates and provides a breakdown of those costs in Airbus Mandatory Service Bulletin A320-32-1492, dated November 25, 2019; and Airbus Mandatory Service Bulletin A320-32-1493, dated November 25, 2019. This service information is available in the AD docket. The 8 work-hours specified in this final rule

matches the manufacturer's estimate. In regards to parts cost, the document that the commenter referred to includes information on the cost of main landing gears (not nose landing gears). The replacement part specified in this AD is a main fitting associated with the nose landing gear, and not the entire nose landing gear assembly. The FAA has received new parts cost information and has updated the parts cost for the main fitting. In addition, as noted in the NPRM, some or all of the costs may be covered under warranty, but the FAA does not control warranty coverage and has therefore included all known costs in the estimate.

As for the request that the FAA conduct a "benefit analysis" of the AD, as a matter of law, in order to be airworthy, an aircraft must conform to its type design and be in a condition for safe operation. The type design is approved only after the FAA determines that it complies with all applicable airworthiness requirements. In adopting and maintaining those requirements, the FAA has already determined that those requirements establish a level of safety that is cost beneficial. If the FAA later makes a finding of an unsafe condition in an aircraft and issues an AD to address that unsafe condition, that means the original cost-benefit level of safety is no longer being achieved and that the required AD actions are necessary to restore that level of safety. Because this level of safety has already been determined to be cost beneficial, and because the AD does not add an additional regulatory requirement that increases the level of safety beyond the level established by the type design, a full cost-benefit analysis for each AD would be redundant and unnecessary. The FAA has not changed this AD in this regard.

Conclusion

The FAA reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule with the change described previously and minor editorial changes. The FAA has determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

The FAA also determined that these changes will not increase the economic burden on any operator or increase the scope of this final rule.

Related Service Information under 1 CFR Part 51

EASA AD 2020-0165 describes procedures for replacing each NLG main fitting having a certain part number and serial number with a serviceable part. This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

The FAA estimates that this AD affects 15 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
8 work-hours X \$85 per hour = \$680	\$82,215.49	\$82,895.49	\$1,243,432.35

According to the manufacturer, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators. The FAA does not control warranty coverage for affected operators. As a result, the FAA has included all known costs in the cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's

authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2021-07-01 Airbus SAS: Amendment 39-21478; Docket No. FAA-2020-0982; Project Identifier MCAI-2020-01037-T.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Airbus SAS airplanes, certificated in any category, as identified in paragraphs (c)(1) through (4) of this AD.

(1) Model A318-111, -112, -121, and -122 airplanes.

(2) Model A319-111, -112, -113, -114, -115, -131, -132, -133, -151N, -153N, and -171N airplanes.

(3) Model A320-211, -212, -214, -216, -231, -232, -233, -251N, -252N, -253N, -271N, -272N, and -273N airplanes.

(4) Model A321-111, -112, -131, -211, -212, -213, -231, -232, -251N, -252N, -253N, -271N, -272N, -251NX, -252NX, -253NX, -271NX, and -272NX airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 32, Landing gear.

(e) Reason

This AD was prompted by a report that the oil used to protect the nose landing gear (NLG) main fittings for transportation and storage was not removed before final heat treatment of the affected parts, possibly generating sub-surface cavities during heat treatment of the affected parts. The FAA is issuing this AD to address possible

sub-surface cavities in the NLG main fittings, which could cause detrimental impact on fatigue performance and affect the structural integrity of the NLG.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2020-0165, dated July 23, 2020 (EASA AD 2020-0165).

(h) Exceptions to EASA AD 2020-0165

(1) Where EASA AD 2020-0165 refers to its effective date, this AD requires using the effective date of this AD.

(2) The “Remarks” section of EASA AD 2020-0165 does not apply to this AD.

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2020-0165 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, Large Aircraft Section, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the Large Aircraft Section, International Validation Branch, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov. Before using any approved AMOC, notify your appropriate principal

inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, Large Aircraft Section, International Validation Branch, FAA; or EASA; or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC)*: Except as required by paragraph (j)(2) of this AD, if any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(k) Related Information

For more information about this AD, contact Sanjay Ralhan, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3223; email Sanjay.Ralhan@faa.gov.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2020-0165, dated July 23, 2020.

(ii) [Reserved]

(3) For EASA AD 2020-0165, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this EASA AD on the EASA website at <https://ad.easa.europa.eu>.

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. This material may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0982.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fedreg.legal@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on March 16, 2021.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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